

Data Centre Networking Market Forecasts to 2030 – Global Analysis By Data Centre Type (Enterprise Data Centres, Colocation Data Centres, Cloud Data Centres, Edge Data Centres and Other Data Centre Types), Network Type, Deployment Mode, Technology, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Data Centre Networking Market is accounted for \$38.75 billion in 2024 and is expected to reach \$68.17 billion by 2030 growing at a CAGR of 13.5% during the forecast period. Data centre networking refers to the architecture, policies, and processes that enable communication between computing and storage resources in a data centre. It involves high-speed switches, routers, and software-defined networking (SDN) to optimize data flow, ensuring low latency, high availability, and security. DCN supports cloud computing, virtualization, and large-scale applications by managing data traffic efficiently.

According to Baxter, North America hosts 2,778 data centre facilities with 211,760,587 square feet and 30,901 megawatts.

Market Dynamics:

Driver:

Increase in data traffic

The surge in cloud computing, video streaming, IoT, AI, and 5G adoption generates massive data volumes, requiring robust data centre networks to handle congestion and

ensure low-latency performance. To meet these demands, businesses invest in advanced networking solutions like SDN, high-bandwidth switches, edge computing, and automation. Additionally, hyperscale and colocation data centres expand their networking capabilities, further accelerating market growth.

Restraint:

Complexity of network management

Data centre networking faces complexity in network management due to the growing adoption of multi-cloud, hybrid cloud environments, virtualization, and SDN. Managing diverse infrastructure, security policies, and traffic flows across multiple platforms requires advanced expertise and automation. This complexity hampers market growth by increasing operational costs, requiring skilled professionals, and leading to potential network inefficiencies or downtimes.

Opportunity:

Rise in hyperscale data centres

Hyperscale data centres, operated by cloud giants like AWS, Microsoft, and Google, require advanced SDN, high-bandwidth switches, and low-latency interconnects to handle vast data volumes. Hyperscale growth boosts investment in fiber optics, edge networking, and AI-driven network automation to enhance efficiency. Additionally, the need for secure, redundant, and high-performance networks fuels adoption of network function virtualization (NFV) and intent-based networking, accelerating market expansion worldwide.

Threat:

Latency challenges in distributed architectures

Data centre networking faces latency challenges in distributed architectures due to geographically dispersed data centres, multi-cloud environments, and edge computing. Data must travel longer distances between nodes, increasing delay. Factors like network congestion, inefficient routing, and inconsistent bandwidth further impact performance. This hampers the market by affecting real-time applications like AI, IoT, and 5G, leading to poor user experiences, slower data processing, and higher operational costs.

Covid-19 Impact:

The covid-19 pandemic significantly accelerated the data centre networking market due to increased remote work, online education, and cloud adoption. Demand for high-speed, scalable, and secure networks surged as enterprises expanded digital operations. However, supply chain disruptions, delayed infrastructure projects, and semiconductor shortages posed challenges. Despite these hurdles, investment in automation, SDN, and cybersecurity increased, reinforcing the market's long-term growth and resilience in a post-pandemic digital landscape.

The enterprise data centers segment is expected to be the largest during the forecast period

The enterprise data centers segment is expected to account for the largest market share during the forecast period. Enterprise Data Centers are privately owned and operated facilities dedicated to supporting an organization's IT infrastructure, applications, and data storage needs. They offer high security, customization, and control over data and workloads. They integrate advanced networking, storage, and security solutions to ensure efficiency, scalability, and business continuity. With growing cloud adoption, many enterprises are shifting towards hybrid or software-defined architectures.

The retail & e-commerce segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the retail & e-commerce segment is predicted to witness the highest growth rate. In retail and e-commerce, data center networking is crucial for handling vast transaction volumes, managing inventory, and ensuring seamless online shopping experiences. High-speed networks support real-time data processing, AI-driven recommendations, and secure payment transactions. Overall, robust networking ensures reliability, low latency, and enhanced customer satisfaction in digital commerce.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share due to increasing cloud adoption, digital transformation, and the expansion of hyperscale data centres. Countries like China, India, Japan, and Singapore are leading due to strong demand for AI, IoT, 5G, and edge computing. Government initiatives

supporting digital infrastructure and smart city projects further boost market expansion. With growing investments from tech giants and data centre providers, the region is poised for continued networking innovation and infrastructure expansion.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR driven by the rapid adoption of cloud computing, AI, IoT, and 5G technologies. The U.S. leads the market, followed by Canada, with major investments from hyperscale cloud providers like AWS, Microsoft Azure, and Google Cloud. The region benefits from strong digital infrastructure, advanced SDN adoption, and cybersecurity innovations.

Key players in the market

Some of the key players in Data Centre Networking market include Cisco Systems, Arista Networks, Juniper Networks, Huawei Technologies, Hewlett Packard Enterprise (HPE), Dell Technologies, IBM Corporation, Nokia Corporation, Extreme Networks, Broadcom Inc., VMware, Inc., Sify Technologies, Fortinet, Inc., Palo Alto Networks, Check Point Software Technologies, NVIDIA Corporation, F5 Networks, Inc., Intel Corporation, Oracle Corporation and ODAC.

Key Developments:

In November 2024, Sify Technologies inaugurated a state-of-the-art data centre for India's Supreme Court in New Delhi. The facility, described as a 'Smart-Rack-Row, Concurrently Maintainable Data Center,' represents a significant step in the Court's digital transformation efforts, aiming to reduce reliance on legacy systems.

In August 2024, Open Access Data Centres (OADC), in partnership with TEXAF, inaugurated a 2MW data center in Kinshasa, the capital of the Democratic Republic of the Congo (DRC). Named OADC Texaf Digital – Kinshasa, this facility is the DRC's first live open-access, carrier-neutral, and Uptime Institute Tier III certified data center. It offers 1,500 square meters of IT white space, accommodating over 550 racks, and is powered by hydroelectricity, ensuring sustainable energy use.

Data Centre Types Covered:

Enterprise Data Centers

Colocation Data Centers

Cloud Data Centers

Edge Data Centers

Other Data Centre Types

Network Types Covered:

Storage Networks (SAN, NAS)

Data Centre Interconnect (DCI)

Converged & Hyperconverged Infrastructure (HCI)

Other Network Types

Deployment Modes Covered:

On-Premises

Cloud-Based

Technologies Covered:

Software-Defined Networking (SDN)

Network Function Virtualization (NFV)

Cloud Networking

Intent-Based Networking (IBN)

AI & Automation in Networking

Other Technologies

End Users Covered:

IT & Telecom

Banking, Financial Services & Insurance (BFSI)

Healthcare

Government & Public Sector

Retail & E-commerce

Media & Entertainment

Manufacturing

Energy & Utilities

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2022, 2023, 2024, 2026, and 2030
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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